ABSTRACT

A system and methods for traffic gating in a computer network comprising a plurality of subnets are developed. One of the methods implemented in a data-over-cable system includes, responsive to receiving a first address resolution request message on a cable modem from a first host to a second host, generating a second address resolution request message on the cable modem and sending it to the second host. If the second host does not respond with an address resolution protocol reply message to the second request message, the cable modem determines a network subnet associated with the first host. Based on the network subnet, the cable modem determines a network address of a network element arranged to provide routing services to hosts on the subnet associated with the first host. Next, the cable modem generates an address resolution reply message including the network address of the network element and sends it to the first host.